# Article information:

Sci-Hub | Black phosphorus and its isoelectronic materials. Nature Reviews Physics | 10.1038/s42254-019-0043-5  
<https://sci-hub.ru/10.1038/s42254-019-0043-5>

# Article summary:

1. This article discusses black phosphorus and its isoelectronic materials, which are materials with the same number of electrons but different atomic structures.

2. The article examines the properties of these materials, such as their electrical conductivity, optical properties, and mechanical strength.

3. It also explores potential applications for these materials in areas such as optoelectronics, energy storage, and sensing.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is written by a team of researchers from various universities and research institutes who have expertise in the field of black phosphorus and its isoelectronic materials. This lends credibility to the article's claims. The authors provide evidence to support their claims through references to other studies and experiments conducted by them or others in the field. Additionally, they provide an overview of potential applications for these materials that could be explored further in future research.

However, there are some potential biases present in the article that should be noted. For example, the authors focus primarily on the positive aspects of black phosphorus and its isoelectronic materials without exploring any possible risks or drawbacks associated with them. Additionally, they do not discuss any counterarguments or alternative points of view that may exist regarding these materials or their potential applications. Finally, while they cite other studies to support their claims, they do not provide any evidence for some of their more speculative statements about potential applications for these materials in areas such as optoelectronics or energy storage.

# Topics for further research:

* Risks associated with black phosphorus
* Counterarguments to black phosphorus applications
* Alternative points of view on black phosphorus
* Optoelectronics applications of black phosphorus
* Energy storage applications of black phosphorus
* Research on isoelectronic materials

# Report location:

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